Fig. 1

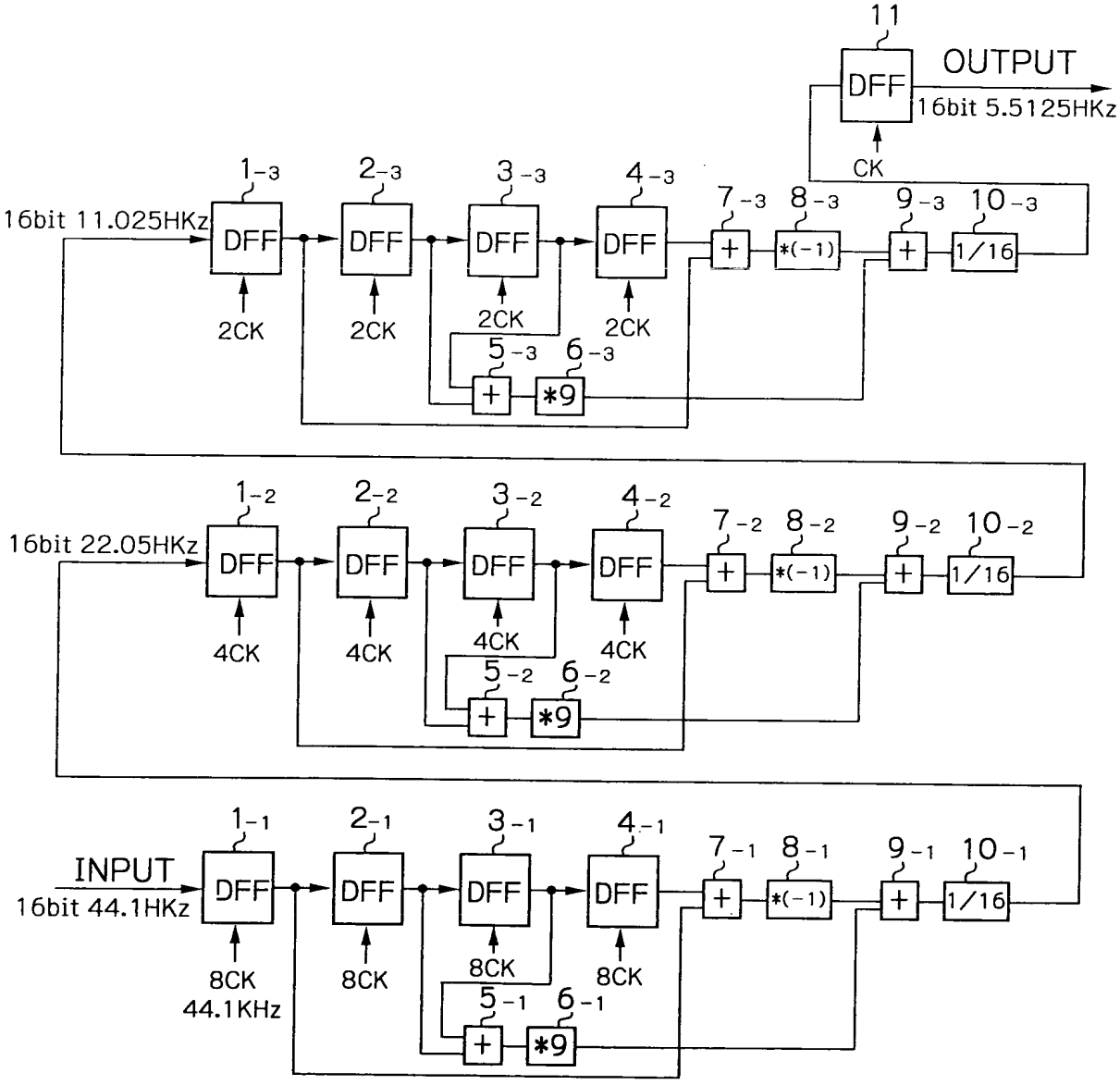

11
DFF
OUTPUT
16bit 5.5125HKz
CK
1-3
2-3
3-3
4-3
7-3
8-3
9-3
10-3
16bit 11.025HKz
DFF
DFF
DFF
DFF
+
*(-1)
+
1/16
2CK
2CK
2CK
2CK
5-3
6-3
+
*9
1-2
2-2
3-2
4-2
7-2
8-2
9-2
10-2
16bit 22.05HKz
DFF
DFF
DFF
DFF
+
*(-1)
+
1/16
4CK
4CK
4CK
4CK
5-2
6-2
+
*9
1-1
2-1
3-1
4-1
7-1
8-1
9-1
10-1
INPUT
16bit 44.1HKz
DFF
DFF
DFF
DFF
+
*(-1)
+
1/16
8CK
44.1KHz
8CK
8CK
8CK
5-1
6-1
+
*9

Fig. 2

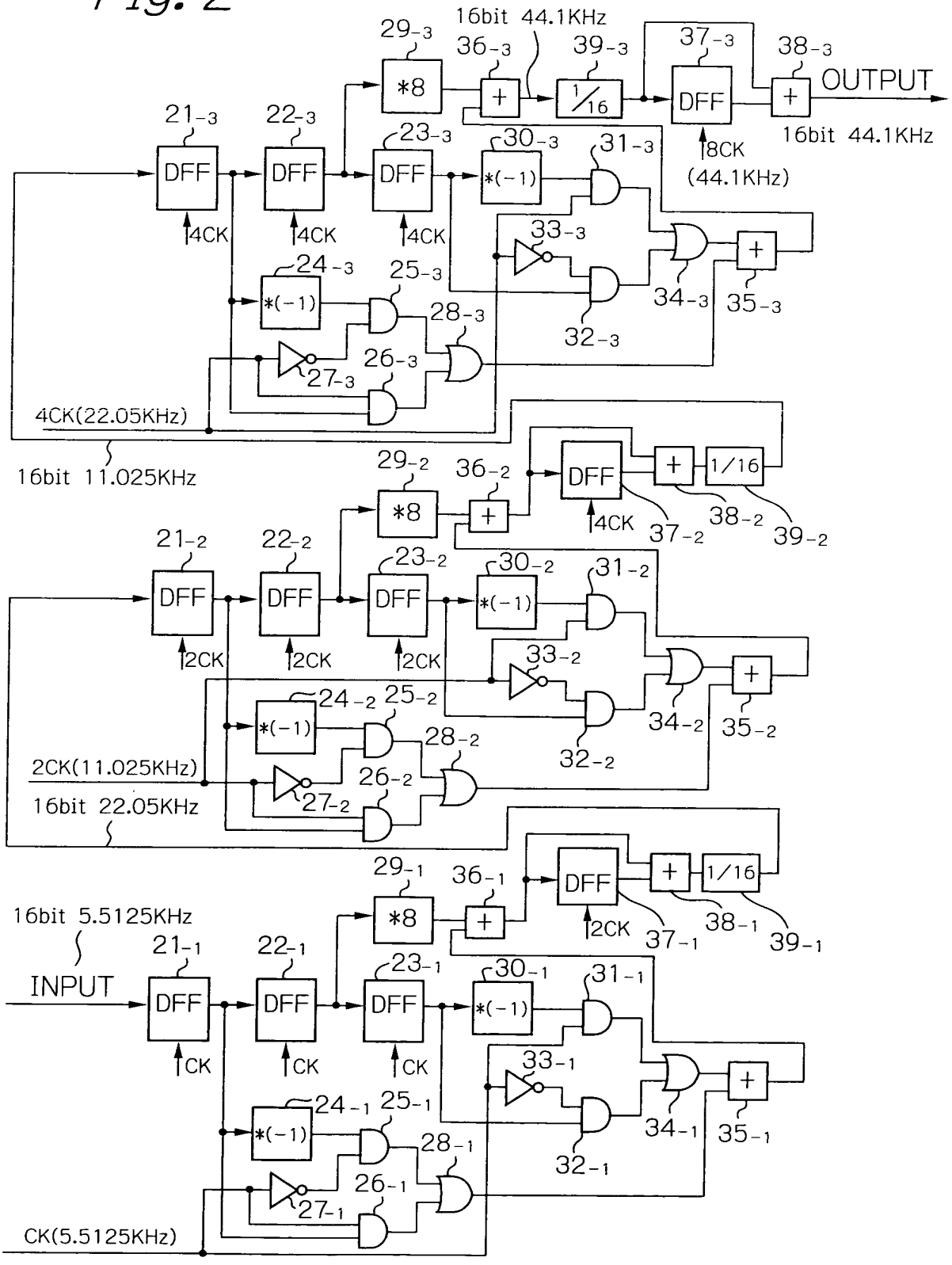

16bit 44.1KHz
29-3
36-3
39-3
37-3
38-3
OUTPUT
*8
+
1/16
DFF
+
16bit 44.1KHz
8CK
(44.1KHz)
21-3
22-3
23-3
30-3
31-3
DFF
DFF
DFF
*(-1)
4CK
4CK
4CK
33-3
24-3
25-3
34-3
35-3
*(-1)
28-3
32-3
26-3
27-3
4CK(22.05KHz)
16bit 11.025KHz
29-2
36-2
DFF
+
1/16
*8
+
4CK
37-2
38-2
39-2
21-2
22-2
23-2
30-2
31-2
DFF
DFF
DFF
*(-1)
2CK
2CK
2CK
33-2
24-2
25-2
34-2
35-2
*(-1)
28-2
32-2
2CK(11.025KHz)
26-2
27-2
16bit 22.05KHz
29-1
36-1
DFF
+
1/16
16bit 5.5125KHz
*8
+
2CK
37-1
38-1
39-1
21-1
22-1
23-1
30-1
31-1
INPUT
DFF
DFF
DFF
*(-1)
CK
CK
CK
33-1
24-1
25-1
34-1
35-1
*(-1)
28-1
32-1
26-1
27-1
CK(5.5125KHz)

Fig. 3A

THINNING PRINCIPLE OF EMBODIMENT 1

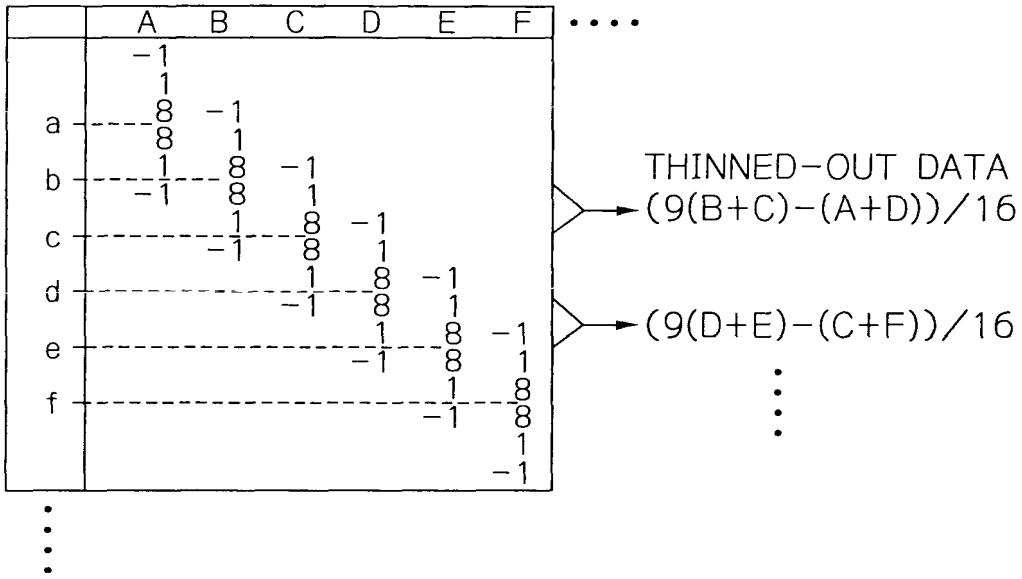


Fig. 3B

INTERPOLATING PRINCIPLE OF EMBODIMENT 1

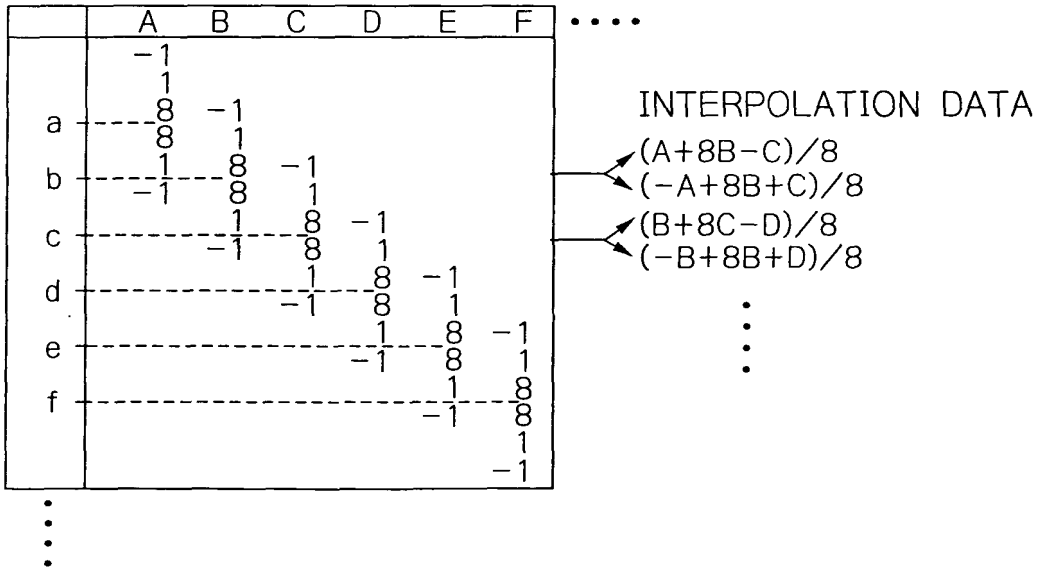


Fig. 4

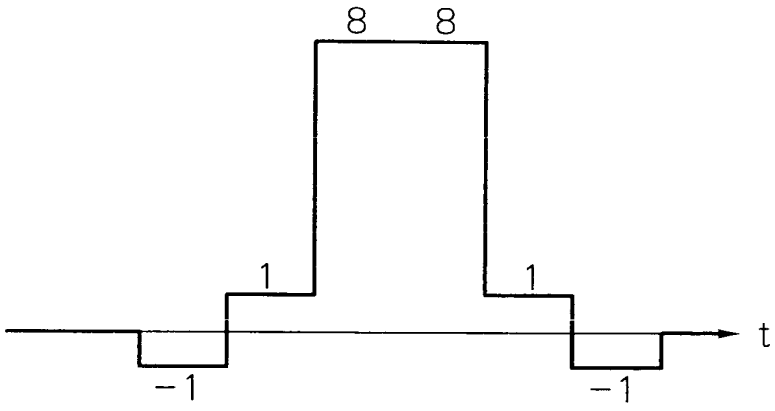


Fig. 5

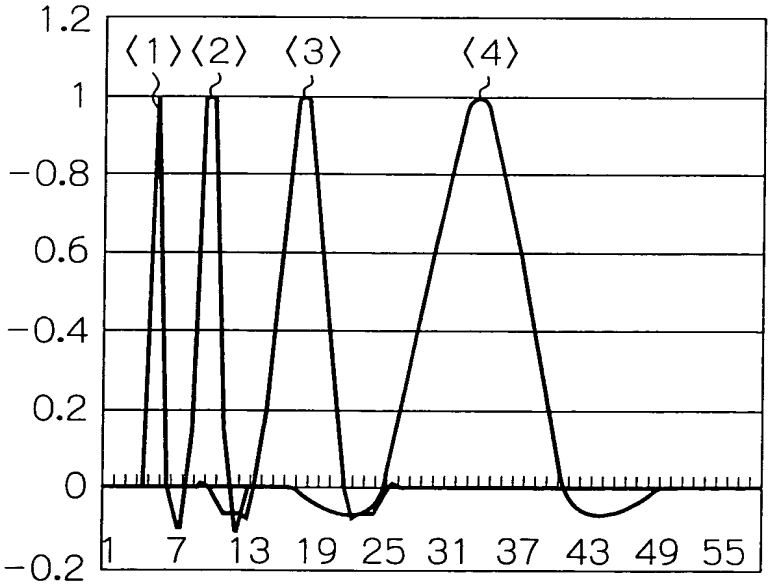


Fig. 6

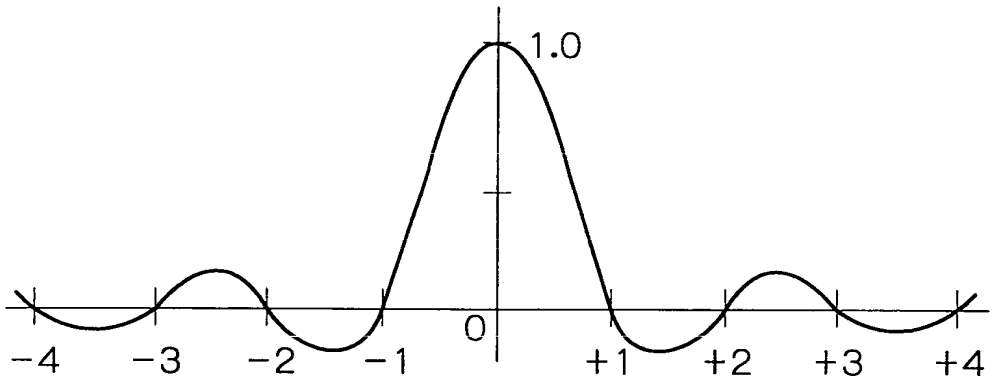


Fig. 7

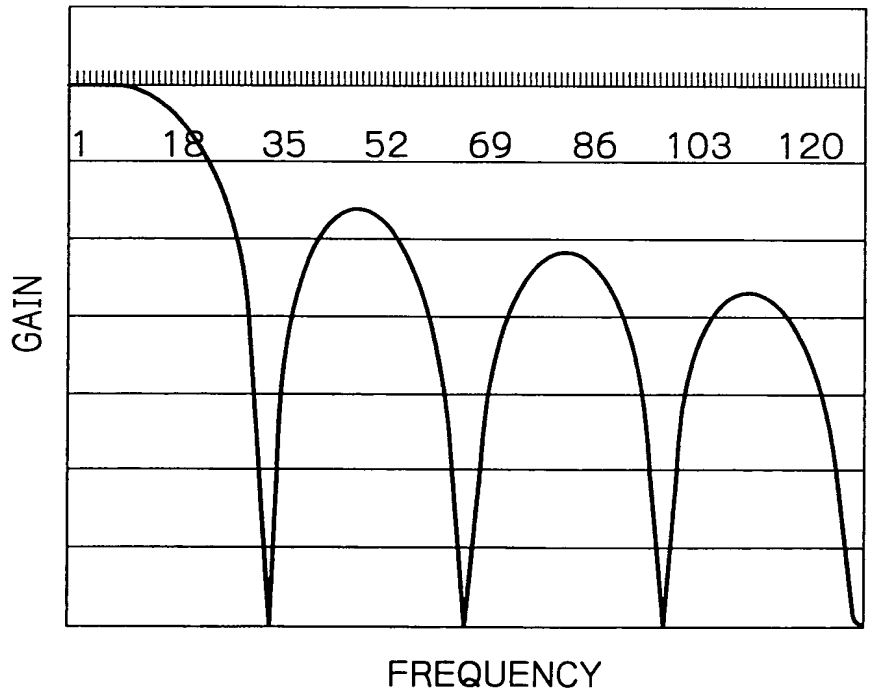


Fig. 8

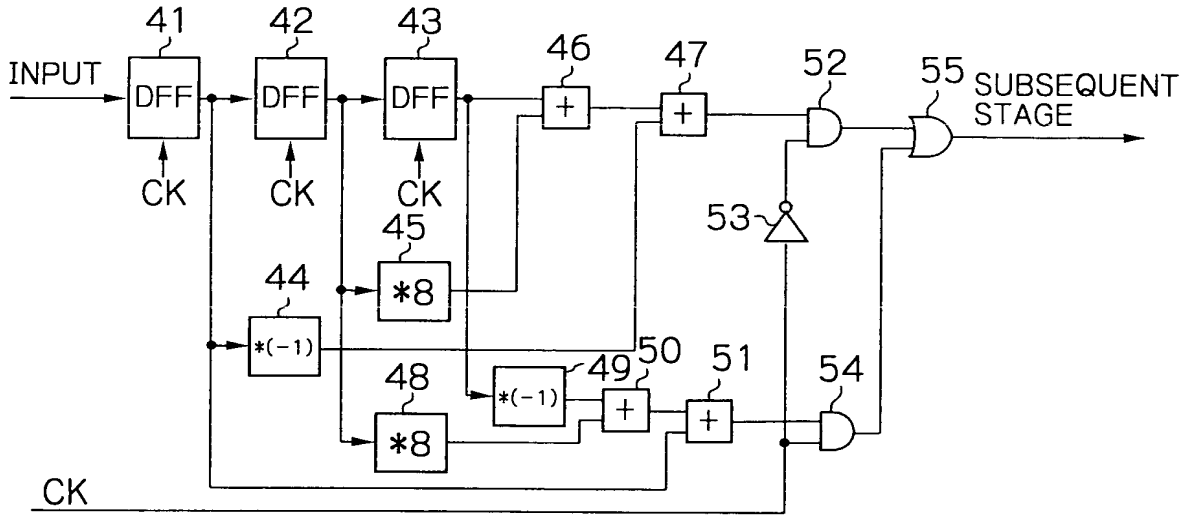

41
42
43
46
47
52
55
INPUT
DFF
DFF
DFF
SUBSEQUENT STAGE
CK
CK
CK
53
45
*8
44
*(-1)
48
*8
*(-1)
49
50
51
54
CK

Fig. 9

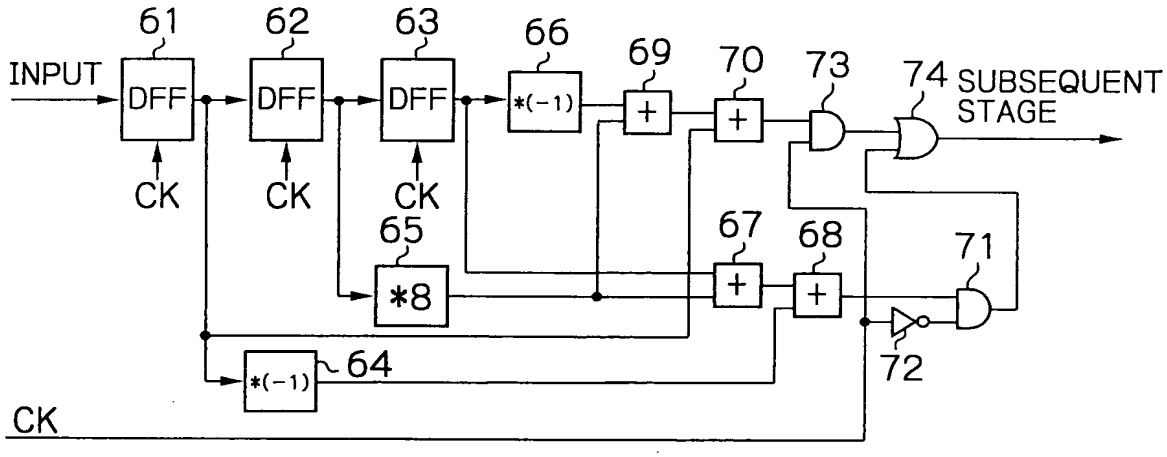

61
62
63
66
69
70
73
74
INPUT
DFF
DFF
DFF
*(-1)
SUBSEQUENT STAGE
CK
CK
CK
65
*8
67
68
71
*(-1)
64
72
CK

Fig. 10

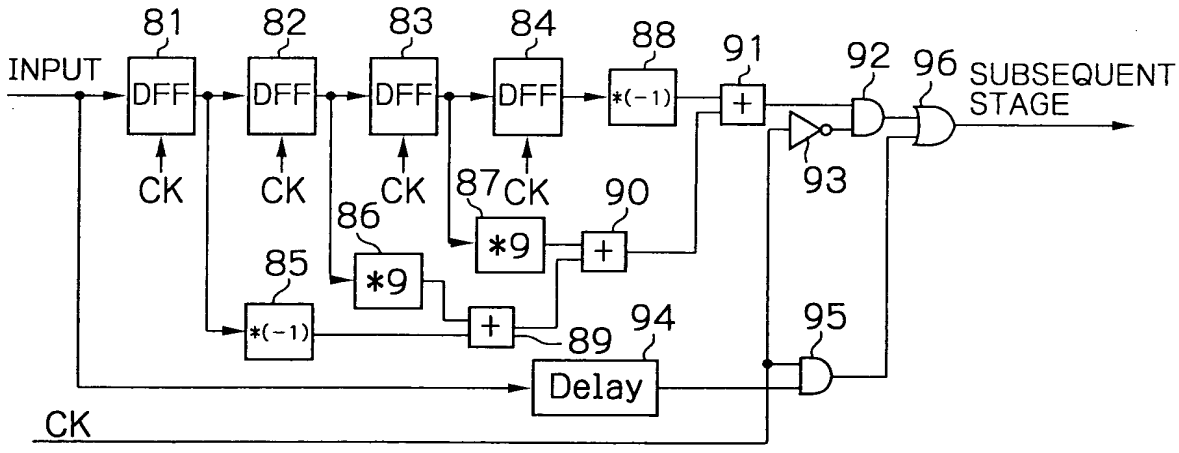

INPUT
81
82
83
84
88
91
92
96
SUBSEQUENT STAGE
DFF
DFF
DFF
DFF
*(-1)
+
CK
CK
CK
CK
87
90
93
86
*9
*9
85
*(-1)
+
89
94
95
Delay
CK

Fig. 11A

INTERPOLATING PRINCIPLE OF EMBODIMENT 2

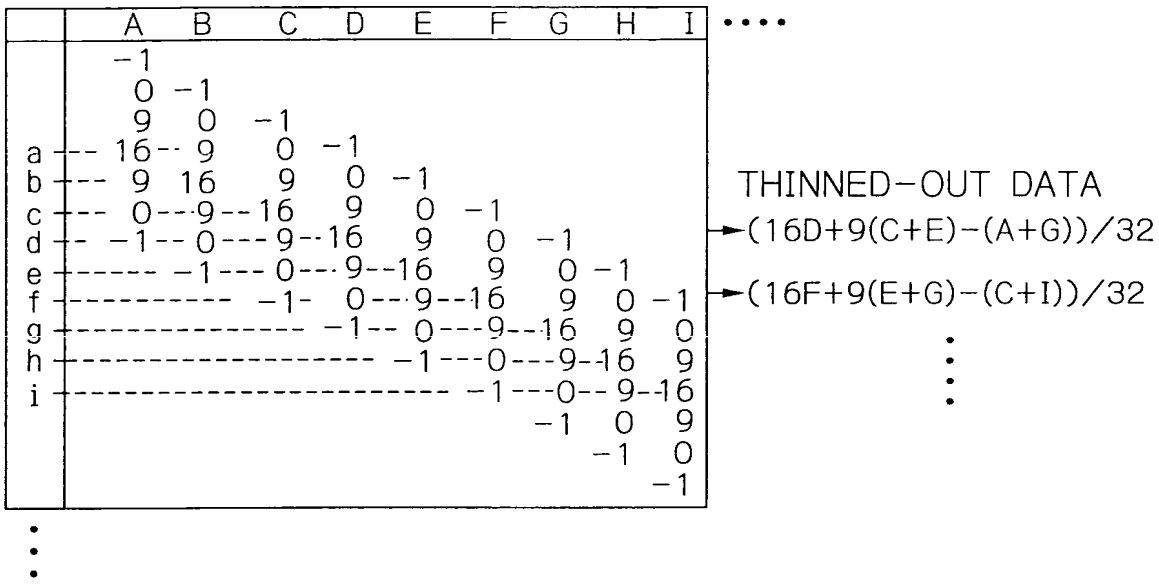


Fig. 11B

INTERPOLATING PRINCIPLE OF EMBODIMENT 2

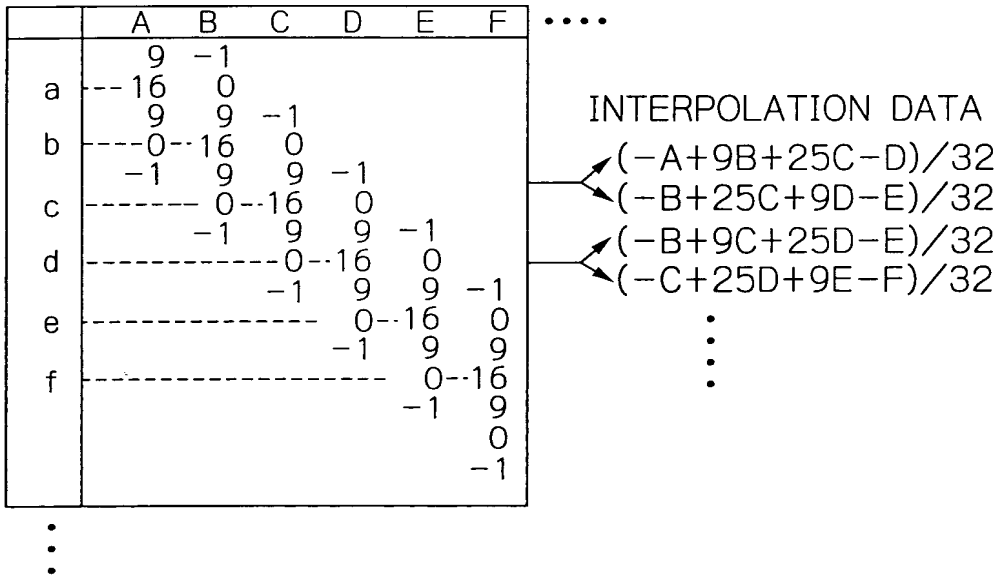


Fig. 12

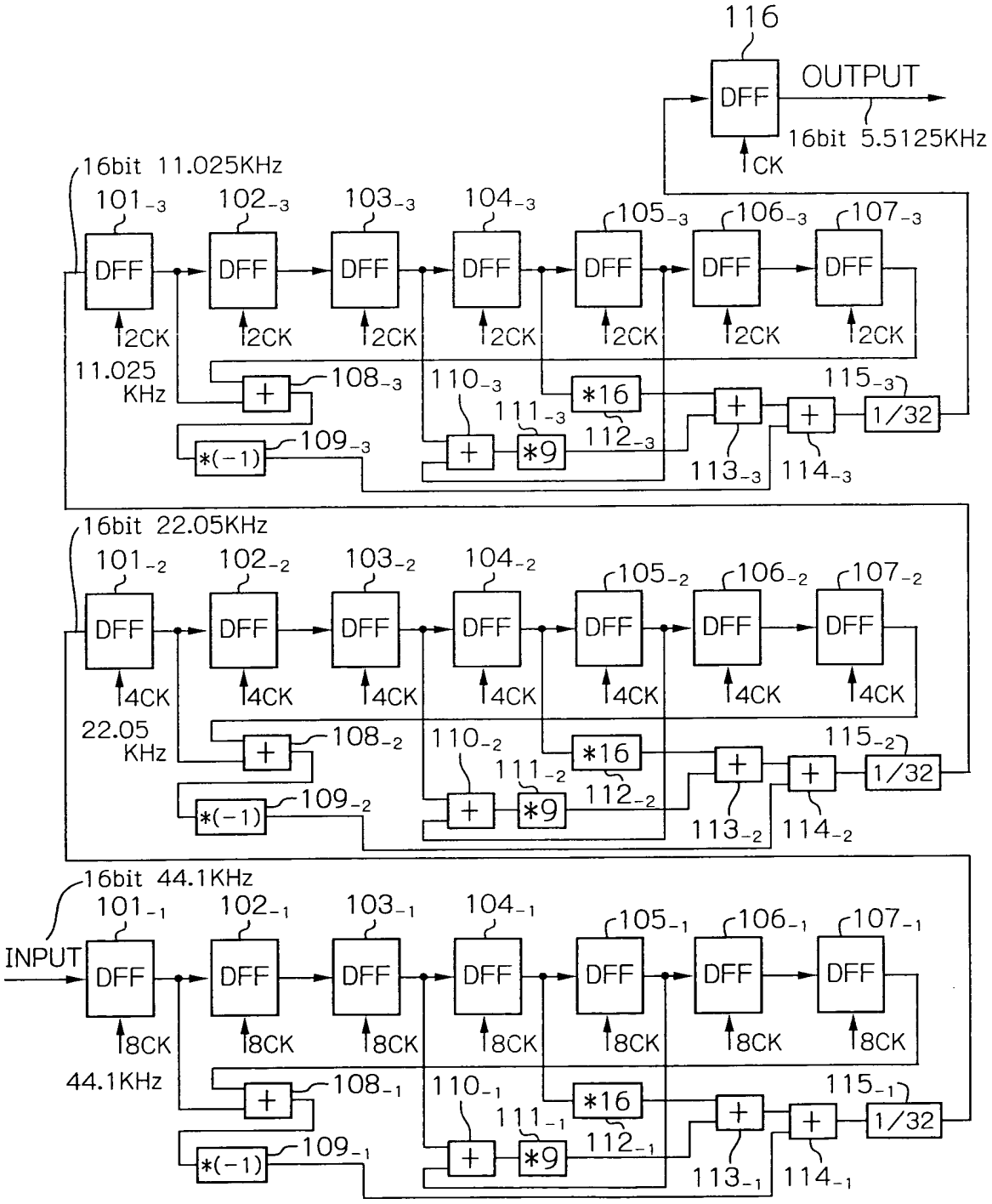

116
DFF
OUTPUT
16bit 5.5125KHz
CK
16bit 11.025KHz
101-3
102-3
103-3
104-3
105-3
106-3
107-3
DFF
2CK
11.025 KHz
108-3
110-3
111-3
*16
112-3
115-3
1/32
*(-1)
109-3
*9
113-3
114-3
16bit 22.05KHz
101-2
102-2
103-2
104-2
105-2
106-2
107-2
4CK
22.05 KHz
108-2
110-2
111-2
112-2
115-2
109-2
113-2
114-2
16bit 44.1KHz
INPUT
101-1
102-1
103-1
104-1
105-1
106-1
107-1
8CK
44.1KHz
108-1
110-1
111-1
112-1
115-1
109-1
113-1
114-1

Fig. 13

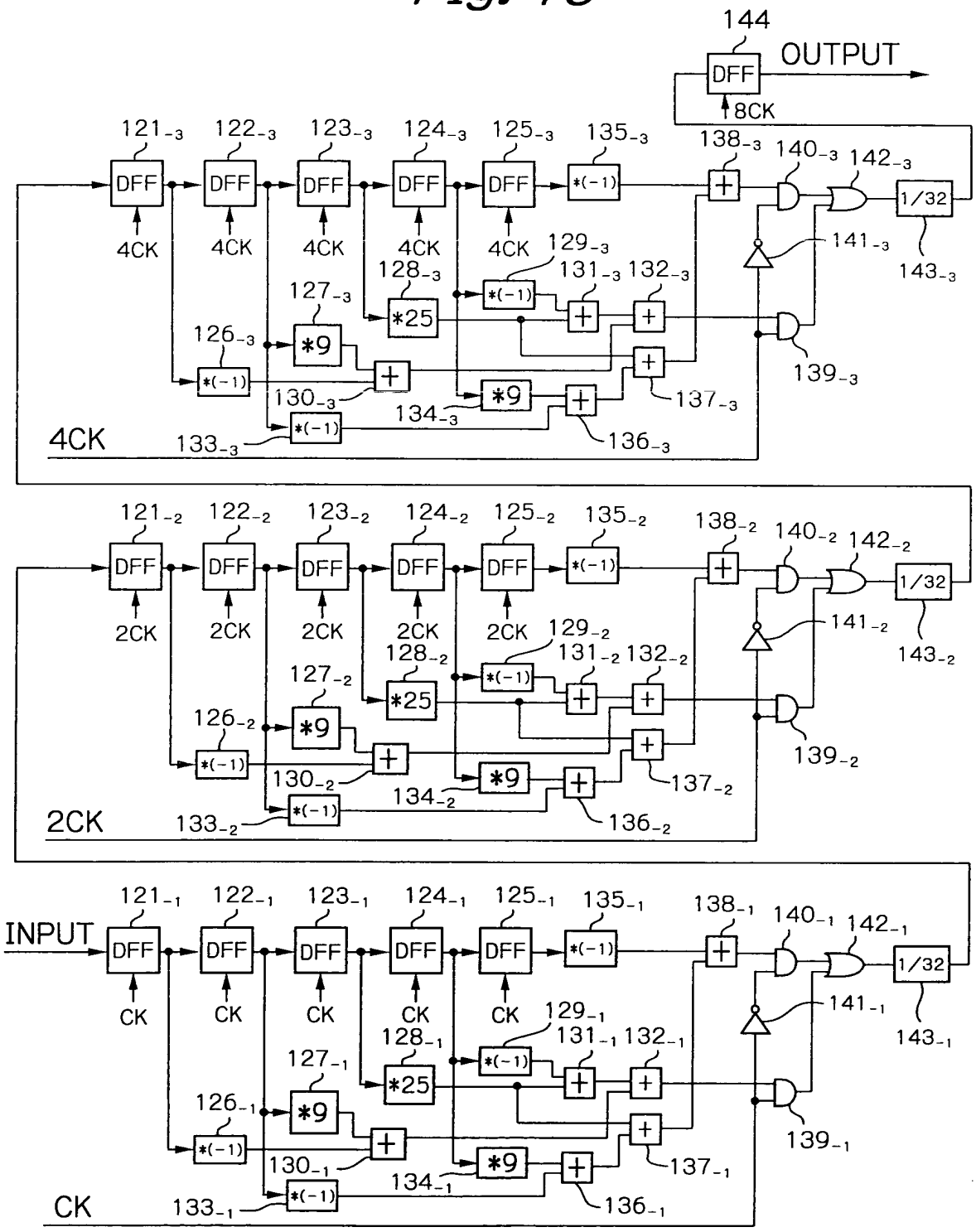

144
DFF
OUTPUT
8CK
121-3
122-3
123-3
124-3
125-3
135-3
138-3
140-3
142-3
1/32
143-3
141-3
4CK
129-3
128-3
131-3
132-3
127-3
*25
*9
*(-1)
126-3
139-3
130-3
134-3
137-3
133-3
136-3
4CK
121-2
122-2
123-2
124-2
125-2
135-2
138-2
140-2
142-2
1/32
143-2
141-2
2CK
129-2
128-2
131-2
132-2
127-2
126-2
139-2
130-2
134-2
137-2
133-2
136-2
2CK
INPUT
121-1
122-1
123-1
124-1
125-1
135-1
138-1
140-1
142-1
1/32
143-1
141-1
CK
129-1
128-1
131-1
132-1
127-1
126-1
139-1
130-1
134-1
137-1
133-1
136-1
CK

Fig. 14

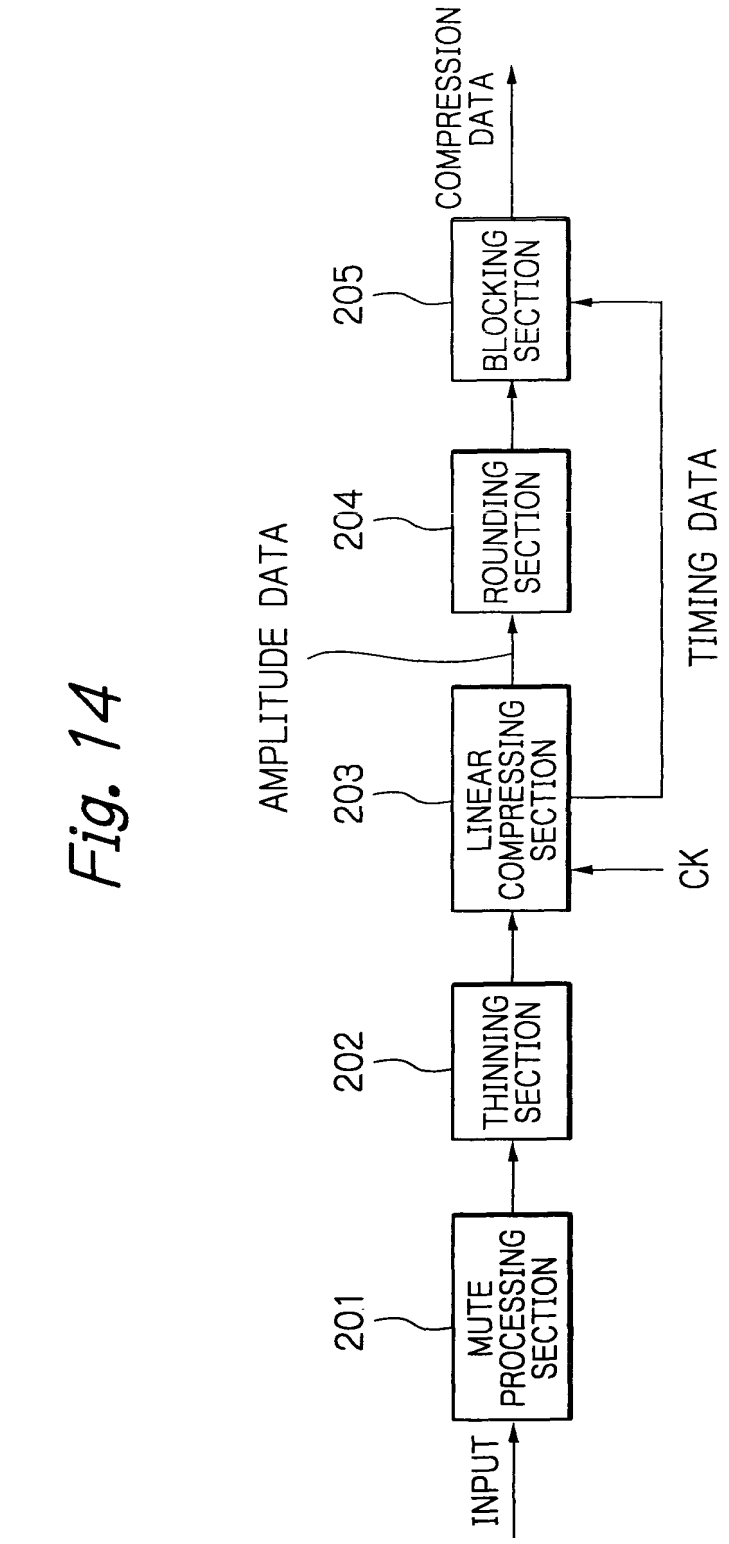
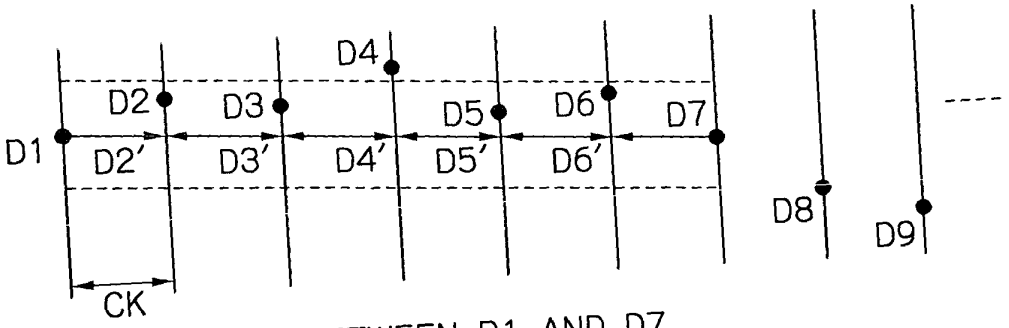
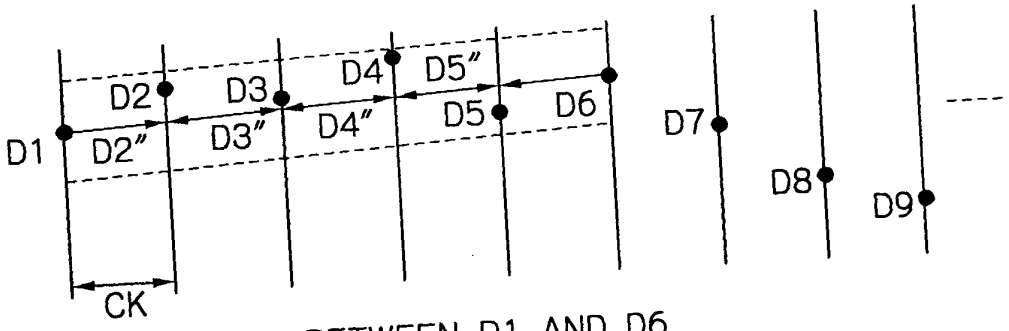

INPUT
201
MUTE PROCESSING SECTION
202
THINNING SECTION
203
LINEAR COMPRESSING SECTION
AMPLITUDE DATA
204
ROUNDING SECTION
205
BLOCKING SECTION
COMPRESSION DATA
CK
TIMING DATA

Fig. 15A



BETWEEN D1 AND D7

Fig. 15B



BETWEEN D1 AND D6

Fig. 16A

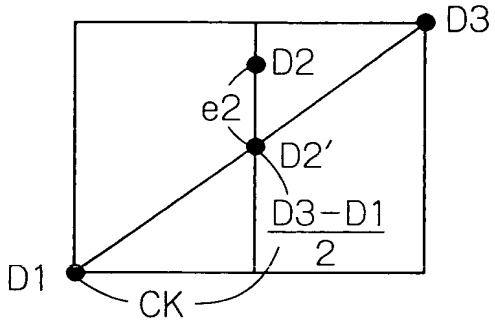


Fig. 16B

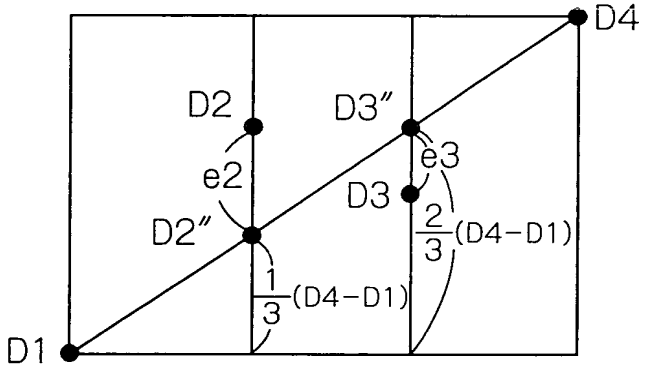


Fig. 17

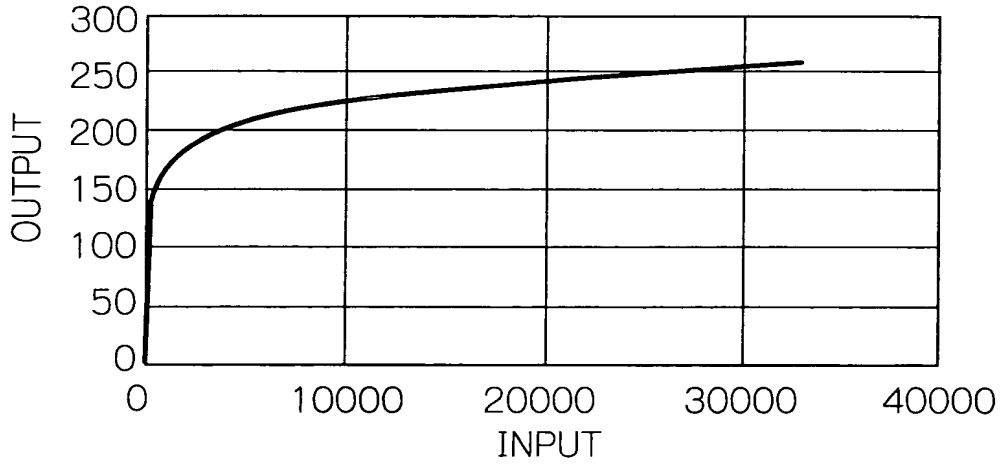


Fig. 18

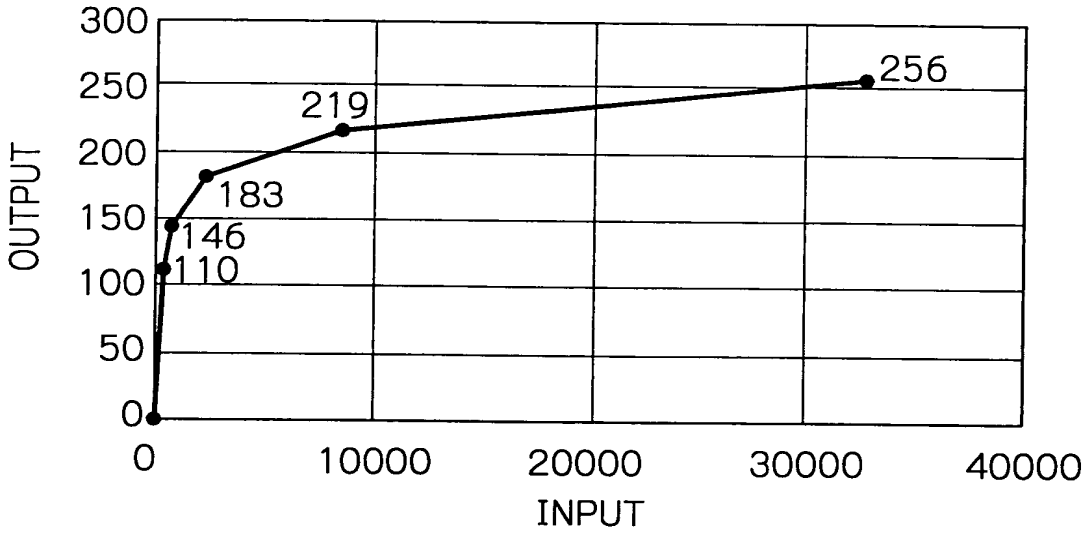

300
250
200
150
100
50
0
OUTPUT
0
10000
20000
30000
40000
INPUT
256
219
183
146
110

Fig. 19

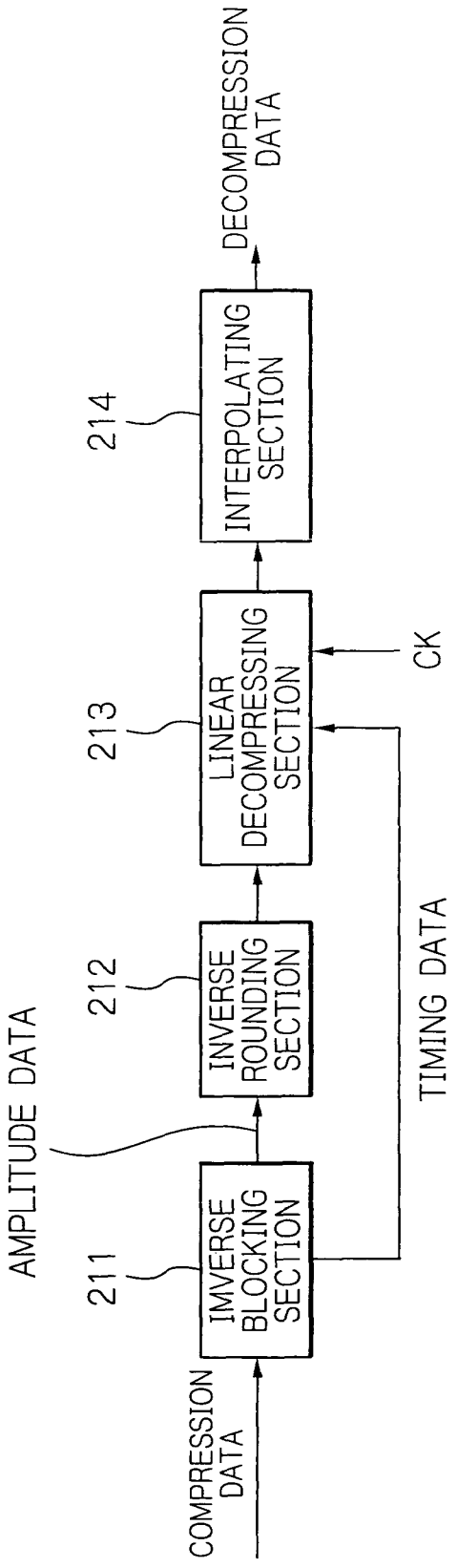

COMPRESSION DATA
211
IMVERSE BLOCKING SECTION
AMPLITUDE DATA
212
INVERSE ROUNDING SECTION
213
LINEAR DECOMPRESSING SECTION
CK
TIMING DATA
214
INTERPOLATING SECTION
DECOMPRESSION DATA

Fig. 20

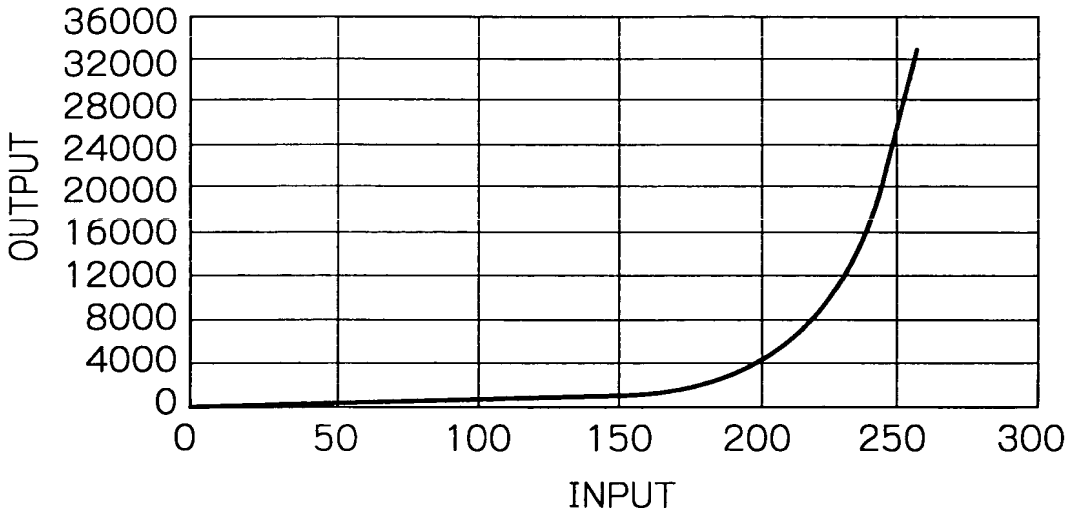

36000
32000
28000
24000
20000
16000
12000
8000
4000
0
OUTPUT
0
50
100
150
200
250
300
INPUT

Fig. 21

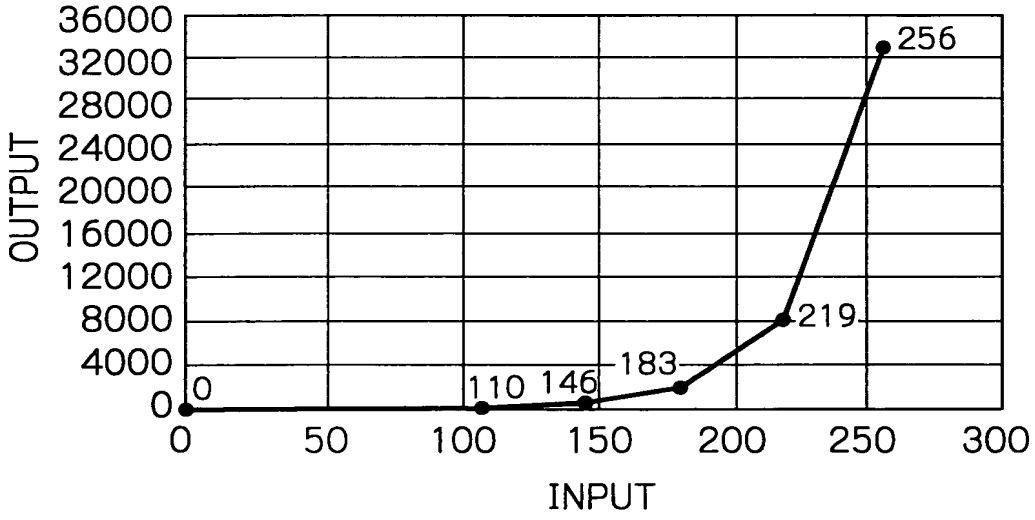

36000
32000
28000
24000
20000
16000
12000
8000
4000
0
OUTPUT
0
110
146
183
219
256
0
50
100
150
200
250
300
INPUT

Fig. 22

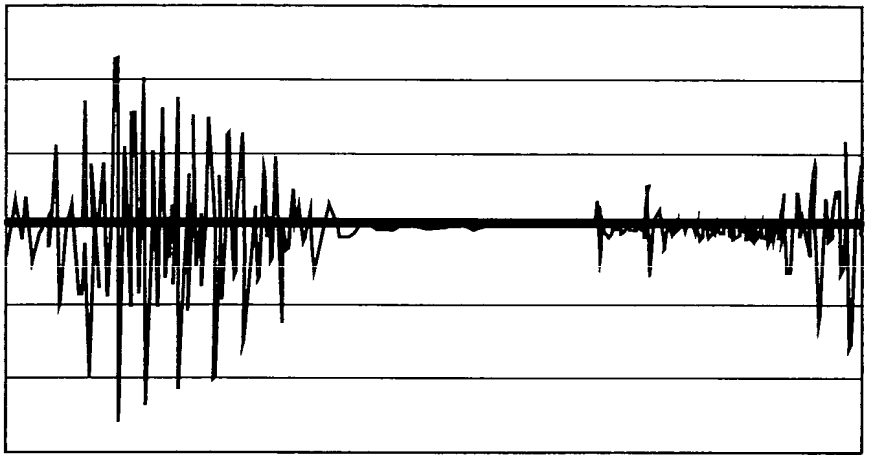


Fig. 23

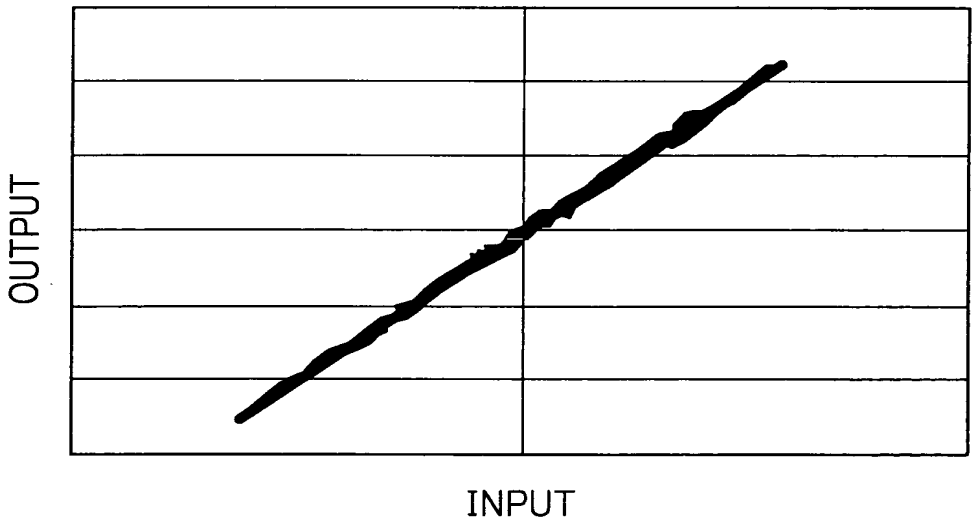


Fig. 24

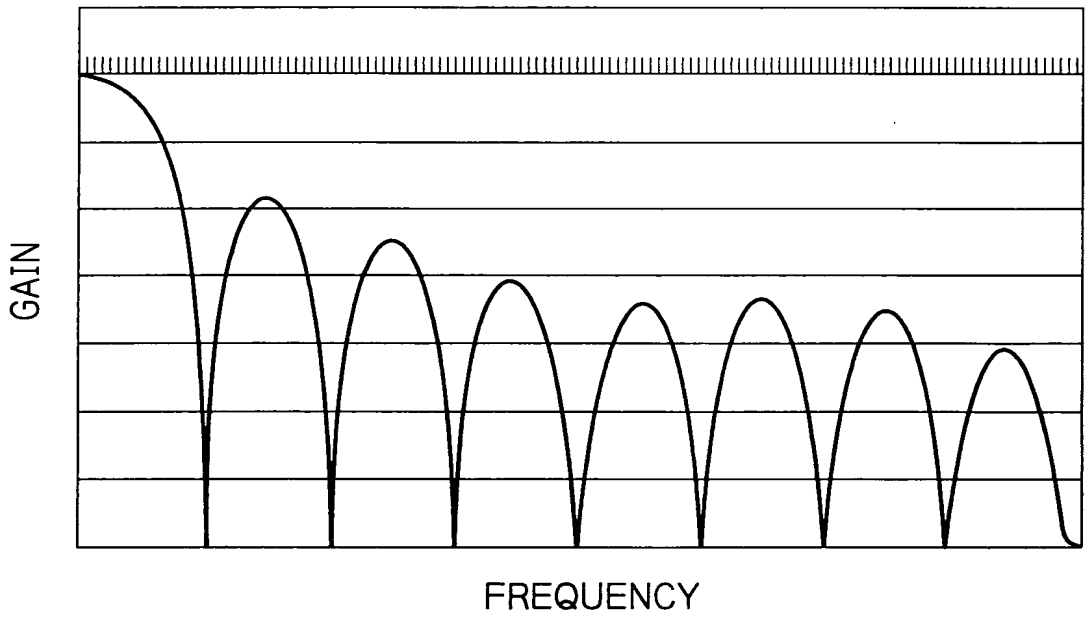


Fig. 25

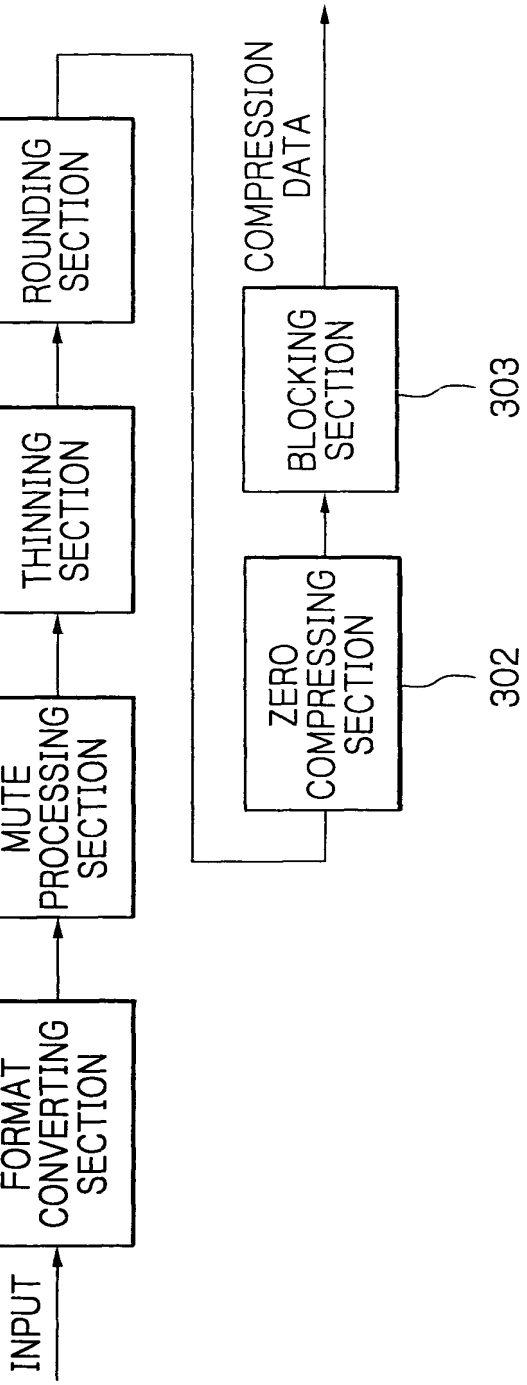

INPUT
301
FORMAT CONVERTING SECTION
201
MUTE PROCESSING SECTION
202
THINNING SECTION
204
ROUNDING SECTION
302
ZERO COMPRESSING SECTION
303
BLOCKING SECTION
COMPRESSION DATA

Fig. 26A

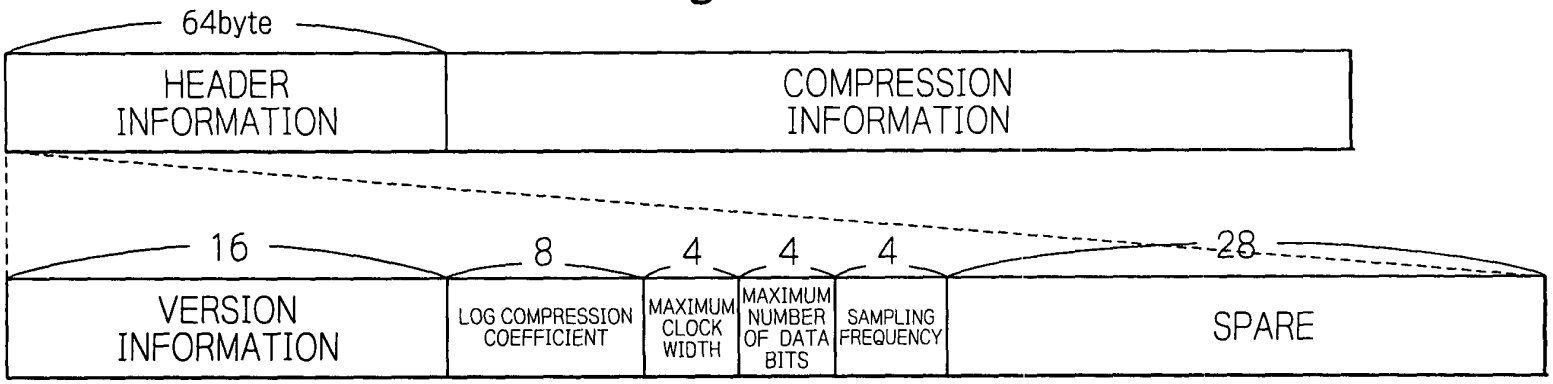


Fig. 26B

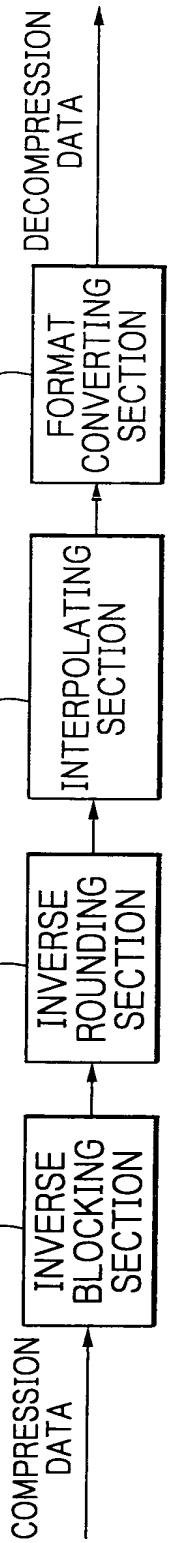
DATA STRUCTURE OF SOUND PART

1	2	3	4	5	6	7	8	9
LOG COMPRESSION INFORMATION								

DATA STRUCTURE OF MUTE PART

1	2	3	4	5	6	7	8	9
1	0	0	0	0	0	0	0	0
NUMBER OF CLOCKS IN MUTE PART								

Fig. 27


COMPRESSION DATA
311
INVERSE BLOCKING SECTION
212
INVERSE ROUNDING SECTION
214
INTERPOLATING SECTION
312
FORMAT CONVERTING SECTION
DECOMPRESSION DATA